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Air Force research bears torch of its own at Olympics

by Capt. Jeff Sandrock, AFMC Public Affairs

SALT LAKE CITY, Utah — A six-member team of Air Force people and contractors made the 1,700-mile crossing from Wright-Patterson Air Force Base to the 2002 Winter Games to showcase part of its cutting-edge technology to the world.

The team trucked in and assembled a marvel of engineering called the WB-4, which stands for Whole Body Scanner, with four instrument packs.

Looking like something out of Star Wars, the scanner consists of two towers supporting four television-sized instrument heads and a central raised platform where the subject stands to be scanned.

"It scans the body and makes a three-dimensional image on the computer screen, and we can extract any number of measurements from that image," said Scott Fleming, the Olympic visit project leader and technician from Sytronics, Inc.

As the subject is scanned, a mechanism lowers the four sensor heads from its ten-foot height down to the ground, using photo, laser and infrared instruments to create an electronic rendition of the subject on a nearby computer.

"The Air Force uses it as a measuring tool to redesign cockpits, pilot seats, G-suits, helmets and oxygen masks," said Fleming.

Visitors in the Air Force scanner tent were invited to listen to a brief description of the device and its purpose, then to step up on the platform to be scanned.

Then, after having any questions answered, they walked away with a full-color printout of their scan, a three-dimensional image of themselves with the Olympic and Air Force logos as a souvenir.

With security as the primary concern at the Olympics, many visitors asked about its use as a security device.

"This scanner is like a camera, except it takes pictures in three dimensions instead of just two. It can't see through clothing," said Fleming.

STRIKING A POSE — Medical Sergeant Jason Fagenbush (pictured right) and his fellow Emergency Medical Technician Jefferson Halladay stand motionless as the WB-4 Whole Body Scanner scans them together (Air Force photo by Capt Jeff Sandrock, AFMC Public Affairs)

The hope of scanning subjects in top physical form also drew the team here to Salt Lake City.

"We hope to scan the Olympic athletes, and add their information into our database," Fleming said. "We have already had several visit us to be scanned."

Having recently completed a four-year study and accumulating more than 12,000 scans, the team has had its share of globe-trotting.

"We traveled all around the U.S. to twelve different sites, and two sites in Europe to gather scans of everyday, normal people," explained Fleming as he spoke to a group of visitors.

The benefactors of this lengthy study, aside from the Air Force, are the automotive, apparel and airline industries.

"The information we provide will allow them to redesign car seats, airline seats, clothing, work stations, chairs, tables, basically everything that people use," said Fleming.

Visitors' reactions ranged from awe to excitement.

"I think it's amazing, the level of detail it can pick up with just one pass," said Jason Fagenbush, a Medical Sergeant

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and Emergency Medical Technician assigned downtown for the duration of the Olympics. "It's neat to see a three-dimensional figure of your body."

"It's awesome," said Derek Hansen, eleven, after seeing the scanner up close with his family.

"I like the clothing aspect, because I'm petite, and things generally don't fit exactly right, so I'm excited about that," said Lynette Simmons, a staff member in the Olympic media operations center.

"I wonder what it's going to be like in five or ten years, when the technology gets twice as good, or ten times better," said Simmons.

Having conducted several hundred scans each day since opening ceremonies, the booth is estimated to reach as many as 15,000 visitors by the time the Olympics are finished.

Cyberware, Inc., built the scanner under Air Force contract, and the scanner is operated by contractors, who are engineers with Sytronics, Inc. **@**